Workshop on
Biometrics and E – Authentication Over Open Networks

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Topic
Liveness Detection for Iris Recognition

Abstract
Biometric technologies provide a convenient and secure way of identification and authentication, superior to traditional methods based on the usage of tokens and/or passwords. As a unique feature of these new technologies, biometrics cannot be considered as secrets: our faces/irises can be photographed and our voices can be recorded at any time; additionally, we leave our fingerprints and DNA everywhere we go. Therefore, reliable methods must be put in place to ensure that biometric samples submitted were taken from live tissue of the legitimate user. This is especially crucial in remote authentication over open networks where neither the end user's terminal nor the data transmission channels can be controlled by systems operators.

It has been already proven that some types of fingerprinting hardware and even iris recognition cameras can be spoofed by certain means; not to speak of other, less reliable biometric methods such as face or voice recognition. This presentation gives an overview of associated threats and risks as well as scientifically possible liveness testing methods as countermeasures to spoofing attacks on iris recognition, the most secure and reliable biometric technology available today.

Biography
Bori Toth leads the Biometric Research and Advisory service line within Deloitte, taking advantage of her scientific expertise in this area. Working alongside a strong team of IT security experts at Deloitte, she offers fully vendor-independent advice on biometric strategy development and systems selection, customized training and workshops on various biometric issues as well as biometric security auditing and technology assurance to organizations within both the public and private sectors.

Ms Toth is an active member of the European Biometrics Forum and the Biometrics Focus Group; she was also part of the CEN eAuthentication committee that recently passed an EU standard regulating interoperability issues associated with biometric smartcard-based multi-application schemes.

In 2003/2004 Ms Toth researched and analyzed biometric technologies at the University of Hagen, Germany in co-operation with the University of Cambridge, UK. The project included a comprehensive, technical analysis of available biometric methods, the review of the current global market situation and the exploration of possible future implementations. Examples of current uses of biometrics were drawn from different industry sectors with a main focus on Financial Services (ATMs, phone banking, POS transactions, bank teller services and physical security for vaults), the Public Sector (border control, ID cards, forensics and public surveillance) and the Automotive Industry (personal profiling, immobilization, keyless vehicle entry and engine start).